Model: **8077SE**

Product Type:

LARGE VIEWING AREA DELUXE AUTO-DARKENING SOLAR WELDING HELMET AND WELDING GLOVES

Foreseen Use of the Tool

Do not use the tool outside of the design intent.
Never modify the tool for any other purpose, or for its use.

Safety Precaution

Caution: To help prevent personal injury

Auto-Darkening Welding Helmets are designed to protect the eye and face from sparks, spatter, and harmful radiation under normal welding conditions. Auto-darkening filter automatically changes from a light state to a dark state when an arc is struck, and it returns to the light state when welding stops.

Auto-Darkening Welding Helmets comes ready for use. The only thing you need to do before your welding is to adjust the position of the headband and select the correct shade number for your application.

- This Auto-Darkening Welding Helmet is not suitable for laser welding & Oxyacetylene welding / cutting processes.
- Never place this Helmet and Auto-darkening filter on a hot surface.
- Never open or tamper with the Auto-Darkening Filter.
- This Auto-darkening welding helmet will not protect against severe impact hazards, including grinding disks. Never use for grinding.
- This helmet will not protect against explosive devices or corrosive liquids.
- Don't make any modifications to either the filter or helmet, unless specified in this manual. Don't use replacement parts other than those specified in this manual. Unauthorized modifications and replacement parts will void the warranty and expose the operator to the risk of personal injury.
- Should this helmet not darken upon striking an arc, stop welding immediately and contact your supervisor or your dealer.
- Don't immerse the filter in water.
- Don't use any solvents on filters' screen or helmet components.
- Use only at temperatures : -10° C ~ + 55° C (14 ° F ~ 131° F).
- Storing temperature : - 20° C ~ + 70° C (- 4 ° F ~ 158° F).
- Protect filter from contacting with liquid and dirt.
- Clean filters' surfaces regularly; do not use strong cleaning solutions. Always keep sensors and solar cells clean using a clean lint-free tissue/cloth.
- Regularly replace the cracked/scratched/pitted front cover lens.
- Never try to open the filter cartridge.

PRODUCT INFORMATION

- Larger viewing area: 96MM x 62MM
- German made lens
- Automatically changes filter screen from clear to dark in 1/20,000 second
- Variable shade adjustment - 9-13 DIN
- UV/IR Protection: Up To DIN 16 At All Times
- Great for use with MIG/MAG, TIG & ARC Welding
- Operator can adjust the time the filter returns from dark to clear
- Automatic Power On / Off (no button to push)
- Utilizes high performance solar cells as power supply
- Battery lifetime up to 4000 hours
- Full face and front of neck protection
- Specially designed headband for greater comfort
- Meets EN, DIN, ISO & ANSI Z87.1 standards
- Large size 13.5" Leather Welding Gloves with flannel lining included

Important

Read these instructions carefully before installing, operating, servicing or repairing this tool. Keep these instructions in a safe accessible place.

Astro Pneumatic Tool Company

www.astrotools.com

1 YEAR LIMITED WARRANTY

- Astro Pneumatic Tool Co. warrants our products to the original user against defective material or workmanship for a period of 1 year (except where noted on our price schedule) from the date of 1st use. Astro reserves the right to determine whether the product failed because of defective material, workmanship or other causes and to charge back for missing parts. Astro Pneumatic Tool Co., at its discretion, will repair products covered under this warranty free of charge. The distributor should direct the original user to return the product (with the exceptions listed below) with the distributor's name, address, adequate proof of date of purchase or a copy of warranty card, and a short note explaining the problem. **Failures caused by accident, alteration, or misuse are not covered by this warranty.**

- **If one part of this product fails, please do not return the entire product. Astro will replace free of charge component parts of this product that fail within 1 year of first use by the original user. Items included in this category include but are not limited to kits, hand tool kits and any other product where there are multiple items or components that make up the unit. Please contact the phone number below in order to obtain the replacement components covered under warranty.**

- Astro Pneumatic Tool Co. or its authorized service representatives must perform all warranty repairs. Any repair to the product by unauthorized service representatives voids this warranty. The rights under this warranty are limited to the original user and may not be transferred to subsequent owners.

- This warranty is in lieu of all other warranties, expressed or implied, including warranties of merchantability and fitness for a particular purpose. Some states do not allow the exclusion of limitations of incidental or consequential damages so the above limitations may not apply to you.

⚠ PLEASE DO NOT RETURN ANY PRODUCT WITHOUT CALLING 1-800-221-9705 FOR INSTRUCTIONS ⚠

Unpacking

When unpacking, check the parts diagram and part number listing on page 4 to make sure all parts are included. If any parts are missing or damaged, please call your distributor.

LARGE VIEWING AREA DELUXE AUTO-DARKENING SOLAR WELDING HELMET AND WELDING GLOVES

MADE IN CHINA

Model: **8077SE**

Product Type:
LARGE VIEWING AREA DELUXE AUTO-DARKENING SOLAR WELDING HELMET AND WELDING GLOVES

ASSEMBLY & OPERATION

The helmet comes ready assembled but before it can be used it must be adjusted to fit the user properly and set up for delay time,sensitivity and shade level.

ADJUSTING THE FIT OF THE HELMET

• The overall circumference of the headband can be made larger or smaller by rotating the knob on the back of the headband. (See adjustment "Y" in fig.1) This can be done whilst wearing the helmet and allows just the right tension to be set to keep the helmet firmly on the head without it being too tight.

• If the headband is riding too high or too low on your head adjust the strap which passes over the top of your head. To do this release the end of the band by pushing the locking pip out of the hole in the band. Slide the two portions of the band to a greater or lesser width as required and push the locking pip through the nearest hole (See adjustment "W" in fig.1)

• Test the fit of the headband by lifting up and closing down the helmet a few times while wearing it. If the headband moves while tilting re-adjust it until it is stable.

ADJUSTING DISTANCE BETWEEN HELMET & FACE

• Step 1: Undo the block nut (See "T" in fig.1) to adjust the distance between the helmet and your face in the down position.

• Step 2: loosen the block nut on either side of the helmet and slide it nearer to or further from your face. (See adjustment "Z" in fig.1) It is important that your eyes are each the same distance from the lens otherwise the darkening effect may appear uneven.

• Step 3: Re-tighten the block nut when adjustment is complete.

fig.1

⚠ WARNING ⚠

Sever personal injury could occur if the user fails to follow the above mentioned warnings, and/or fails to follow the operating instructions.

ADJUSTING ANGLE OF THE MASK IN THE DOWN POSITION

• If the lens is not properly aligned with the eyes in the down position the mask angle can be further adjusted into one of three preset positions using the tilt plate shown in fig.2. Behind each pivot knob on the sides of the helmet there is a screw which passes through the side of the mask and into one of the holes in the tilt plate (see A,B,C in fig.2).

• Partially undo each screw counterclockwise so that it withdraws out of the tilt plate but remains in the side of the mask. Rotate the assembly so that one of the alternative positions is aligned with the end of the screw. Turn the screws clockwise again so that they pass through the holes thus fixing the position of the tilt plate.

fig.2

SELECTING SHADE LEVEL

• Select the shade level you require according to the welding process you will use by referring to the "Shade Guide Table" below for settings. Turn the shade control knob on the side of the helmet to the shade number required.

SELECTING DELAY TIME

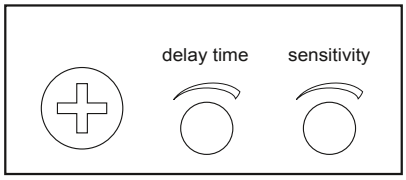
• When welding ceases the viewing window automatically changes from dark back to light but with a pre-set delay to compensate for any bright afterglow on the workpiece. The delay time/response can be set to "short" to "long" as you require using the dial knob on the back of the shade cartridge. (See fig.3)

SENSITIVITY

• The sensitivity can be set from "high" to "low" using the dial knob on the back of the shade cartridge. The"low" setting is the normal setting for everyday use.

• Where the operation of the mask is disturbed by excess ambient light or another welding machine close by, use the "low" setting. (See fig.3).

fig.3



• Please adjust the sensitivity to the lowest level when you are not working.

You are now ready to use the helmet, The shading may be adjusted during use by re-setting potentiometer control.

Model: **8077SE**

Product Type:

LARGE VIEWING AREA DELUXE AUTO-DARKENING SOLAR WELDING HELMET AND WELDING GLOVES

MAINTENANCE INSTRUCTIONS

• REPLACING FRONT COVER LENS. Replacing the front cover lens if it is damaged (cracked, scratched, soiled or pitted). See fig.4

• CHANGING BATTERY. If "Low battery" alarm light is red, please change it with new battery.

• CLEANING. Clean helmet by wiping with a soft cloth. Clean cartridge surfaces regularly. Do not use strong cleaning solutions. Clean sensors and solar cells with methylated spirit and a clean cloth and wipe dry with a lint-free cloth.

• PLEASE ADJUST THE SENSITIVITY TO THE LOWEST LEVEL WHEN YOU ARE NOT WORKING.

fig.4

fig.4a

TECHNICAL SPECIFICATIONS

Viewing Area:	96 x 62 mm (3.8"x2.4")
Cartridge Size:	110 x 106 x 9mm (4.3"x4.2"x0.35")
Arc Sensor:	2
Light State:	Shade DIN 3.5
Variable Shade:	From DIN 9 to DIN 13
Shade Control:	External adjustable
Power On/Off:	Fully Automatic
Sensitivity Control:	Be adjustable by dial knob
UV/IR Protection:	Up To Shade DIN16 at all time
Power Supply:	Solar cell, battery can be changed (3V lithium)
Battery Lifetime:	Over 4000hours before low battery alarming
Switching Time:	1/20,000 s. from Light to Dark
Dark to Light:	0.1~1.0s by dial control knob
Operating Tep.:	- 1 0° C ~ + 55° C
Storing Temperature:	- 20° C ~ + 70° C
Helmet Material:	High-impact resistant plastic / Polyamide Nylon
Total Weight:	475g

⚠ WARNING ⚠

Before using the helmet for welding ensure you have read and understood the safety instructions

Irregular Darkening Dimming

• Headband has been set unevenly and there is an uneven distance from the eyes to the filter's lens (Reset headband to reduce the difference to filter).

Auto-Darkening Filter Does Not Darken Or Flickers

• Front cover lens is soiled or damaged (change lens cover)
• Sensors are soiled (clean the sensors' surface)
• Welding current is too low (turns the switch to the "slow" position).

Slow Response

• Operating temperature is too low (do not use at temperatures below - 10° C or 14° F).

Poor Vision

• Front /inside cover lens and/or filter lens are soiled (change lens)
• There is insufficient ambient light
• Shade number is incorrectly set (reset the shade number)

Welding Helmet Slips

• Headband is not adjusted properly (readjust headband)

WARNING

User must stop using the auto-darking welding helmel immediately if the above-mentioned problems cannot be corrected. Contact Astro Pneumatic Tool Company.

Astro Pneumatic Tool Company
372 Old US Highway 52 South
Mount Airy, NC 27030

Model:

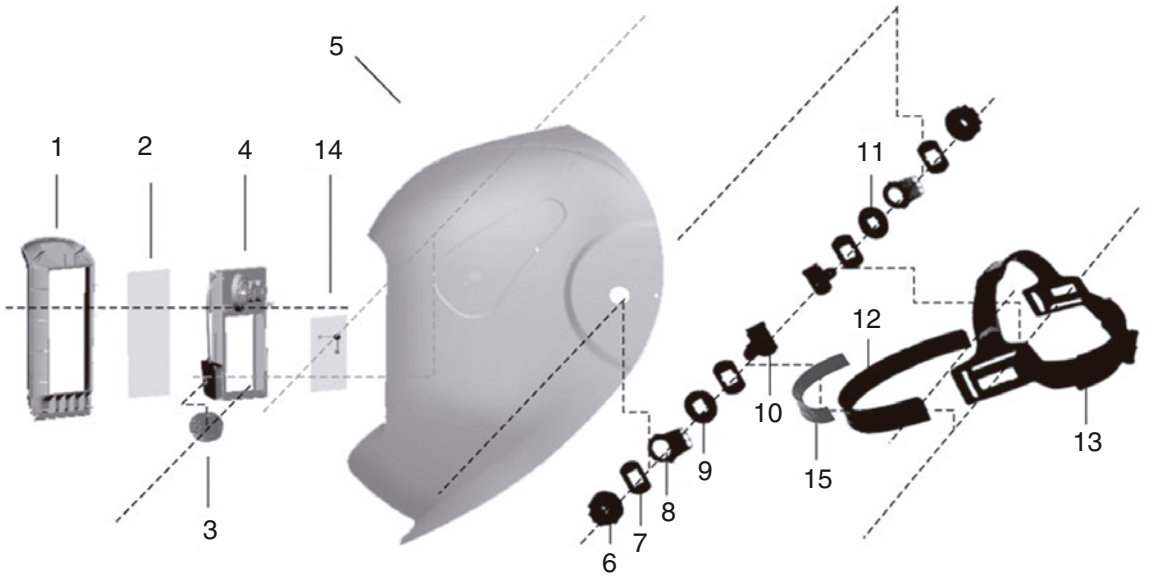
8077SE

Product Type:

LARGE VIEWING AREA DELUXE AUTO-DARKENING SOLAR WELDING HELMET AND WELDING GLOVES

PARTS BREAKDOWN

Call 1.800.221.9705 for questions concerning performance of the product or other inquiries.



Parts List

Index No.	Part No.	Description	Qty
1	8077-01	Frame	1
2	8077-02	Front Cover Lens	1
6	8077-03	Shade Knob	1
4	8077-04	Auto-Darkening Filter Cartirdge	1
5	8077-05	Shell (Welding Mask)	1
6	8077-06	Block Nut	2
7	8077-07	Washer	4
8	8077-08	Adjustable Limitation Washer	2

Index No.	Part No.	Description	Qty
9	8077-09	Left Limitation Washer	1
10	8077-10	Screw	2
11	8077-11	Right Limitation Washer	1
12	8077-12	Front Headband	1
13	8077-13	Adjustable Headband	1
14	8077-14	Inside Cover Lens	1
15	8077-15	Sweatband	1

SHADE GUIDE TABLE **(No.1)**

Welding Process	ARC CURRENT (Amperes) 0.5 1 2.5 5 10 15 20 30 40 60 80 100 125 150 175 200 225 250 275 300 350 400 450 500
SMAW	9 10 11 12 13 14
MIG (heavy)	10 11 12 13 14
MIG (light)	10 11 12 13 14 15
TIG, GTAW	9 10 11 12 13 14
MAG/CO_2	10 11 12 13 14 15
SAW	10 11 12 13 14 15
PAC	11 12 13
PAW	8 9 10 11 12 13 14 15

Note:

SMAW - Shielded Metal Arc Welding
MIG (Heavy) - MIG on Heavy Metals
SAW - Shielded Semi-Automatic Arc Welding
TIG,GTAW - Gas Tungsten Arc Welding
PAW - Plasma Arc Welding
MIG (Light) - MIG on Light Alloys
PAC - Plasma Arc Cutting
MAG/CO_2 - metal active gas